

Applicants: Savio, et al.  
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Page 4

**AMENDMENTS TO THE CLAIMS:**

This listing of claims replaces the listing of claims in the application.

Listing of Claims:

**CLAIMS**

**~~VACCINE COMPOSITION COMPRISING INTERLEUKIN-15 (IL-15)~~**

What is claimed is:

- 1) (Original) A vaccine composition wherein human IL-15 is an antigen.
- 2) (Original) A vaccine composition of claim 1 wherein IL-15 is recombinant.
- 3) (Currently Amended) A vaccine composition of claim 1 ~~and claim 2~~ wherein IL-15 is fused to a carrier protein.
- 4) (Original) A vaccine composition of claim 3 wherein a carrier protein is p64k.
- 5) (Currently Amended) A method to treat IL-15 expression-related diseases, the method comprising administering effective therapeutic doses ~~administration~~ of a vaccine composition of ~~claims 1-5~~ claim 1.
- 6) (Currently Amended) A method to treat autoimmune diseases such as RA, Crohn's disease and psoriasis, the method comprising administering effective therapeutic doses ~~administration~~ of a vaccine composition of ~~claims 1-5~~ claim 1.
- 7) (Currently Amended) A method to treat leukemia related to IL-15 as a growth factor, the method comprising administering effective therapeutic doses ~~administration~~ of a vaccine composition of ~~claims 1-5~~ claim 1.

- 8) (Currently Amended) A method of ~~claims 6-8~~ claim 6 wherein vaccine composition is used concurrently with anti-inflammatory drugs or other cytokines antagonist.
- 9) (Currently Amended) The use of a vaccine composition of ~~claims 1-5~~ claim 1 to generate a neutralizing antibodies response against autologous Interleukin-15 (IL-15).
- 10) (Currently Amended) The use of a vaccine composition of claim ~~40~~ 1 to treatment of autoimmune diseases such as RA, Crohn's disease and psoriasis.
- 11) (Currently Amended) The use of a vaccine composition of claim ~~40~~ 1 to treatment of leukemia related to IL-15 as a growth factor.
- 12) (Original) The use of a DNA sequence coding for human IL-15 like a DNA vaccine to treat IL-15 expression-related diseases.
- 13) (New) A method of claim 7 wherein vaccine composition is used concurrently with anti-inflammatory drugs or other cytokines antagonist.